body weight less or equal to 100 kg who received 45 mg. Additionally, PASI responses from ACCEPT between ustekinumab and etanercept were used. Costs in the model included drug acquisition costs only. **RESULTS:** In the weight-based efficacy analysis, ustekinumab 45 mg treatment had the highest PASI 75 response. Under a fixed budget of TL 1,000,000, it is possible to treat more patients successfully (achieving a PASI75) with ustekinumab 45 mg than with etanercept 50 mg biweekly. In both the first year of therapy and in the maintenance year, ustekinumab 45 mg is more cost-effective compared to etanercept 50 mg biweekly. **CONCLUSIONS:** According to the results of the cost per responder model, ustekinumab 45 mg is more cost-effective than etanercept 50 mg biweekly and therefore a preferable alternative in the treatment of moderate to severe plaque psoriasis in Turkey.

**PSS9**

### EFFICIENCY (COST/EFFICACY) OF BIOLOGIC AGENTS IN THE TREATMENT OF MODERATE TO SEVERE PSORIASIS

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**OBJECTIVES:** To estimate the cost/efficacy ratios of biologics authorized in Spain in 2009 (adalimumab, etanercept, infliximab and ustekinumab) in the management of moderate-severe psoriasis. **METHODS:** A model for economic evaluation (decision tree) was built for the treatments according to the available scientific evidence. The payer perspective (National Health System) was used, only considering drug cost and assuming zero cost for placebo. In the case of weight-dependent dosing, the weight of the study participants was adjusted by age and sex to the standard Spanish population corrected by the weight increment in individuals with psoriasis. The Psoriasis Area Severity Index (PASI) 75 criterion (improvement of 75% from baseline PASI) was used as indicator of efficacy. The incremental efficacy (calculated as the proportion of patients responding with PASI 75 criterion in the biologic group minus the proportion who respond in the placebo group) was assigned according to the outcomes of clinical trials at the period of time defined in the primary efficacy outcome. When more than one trial was available per treatment, a meta-analysis was undertaken (DerSimonian-Laird method). Uncertainty was tested by deterministic sensitivity analysis, building scenarios with the confidence intervals at 95% for costs and efficacy. **RESULTS:** The incremental efficacy in the baseline scenario ranged from 31.19 % (etanercept: 25 mg twice a week at 12 weeks of treatment) to 78.35% (infliximab: 5 mg/Kg at 24 weeks of treatment). The efficiency in terms of cost/efficacy, in the baseline scenario, ranged from €8,013 (adalimumab at 16 weeks) and €17,981 (ustekinumab: 90 mg at 12 weeks) per PASI 75 responder. In the sensitivity analysis, adalimumab remains as the most efficient biologic on the most and least favourable scenarios. **CONCLUSIONS:** Of the biologic agents authorized in Spain for treating moderate-severe psoriasis, the most efficient in terms of cost/efficacy is adalimumab.

**PSS10**

### COST PER RESPONDER OF USTEKINUMAB VERSUS ETANERCEPT IN PATIENTS WITH MODERATE-TO-SEVERE PLAQUE PSORIASIS: ANALYSIS FROM THE ACCEPT TRIAL

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**OBJECTIVES:** To compare the cost per responder of ustekinumab (UST) versus etanercept (ETN) based on head-to-head data from the ACCEPT trial, which demonstrated greater efficacy of two doses of UST, 45 mg and 90 mg at weeks 0 and 4, versus ETN, 50 mg twice weekly through week 12, in patients with moderate-to-severe plaque psoriasis (PsO). **METHODS:** Efficacy results (proportion of patients achieving at least 75% improvement in the Psoriasis Area and Severity Index [PASI75]) were obtained from the ACCEPT trial (n = 903). Given the unique dosing of UST (weeks 0, 4, 16, and q12 weeks thereafter), we determined the cost per PASI75 response at week 16, the appropriate decision point for determining whether to proceed with a third dose. Week 16 PASI75 results were assumed to be equal to week 12 efficacy from ACCEPT; previously published randomized controlled trials have reported similar observations for both drugs. Dosing through week 12 was per ACCEPT. Dosing for weeks 13–16 was assumed to be per labeled indication in PsO. US wholesale acquisition cost (WAC) was used for calculating costs. The analyses used weight-based efficacy results for UST (45 mg ≤100 kg and 90 mg >100 kg) and overall efficacy for ETN to align with the respective approved labels for each drug. **RESULTS:** In ACCEPT, 209 patients received UST 45 mg, 347 received UST 90 mg, and 347 received ETN. Baseline demographics and disease characteristics were comparable between groups. Twenty-eight percent of patients were >100 kg. The PASI75 responses at week 12 were 72% for UST 45 mg in patients ≤100 kg and 65% for UST 90 mg in patients >100 kg, compared with 57% for the ETN group. At week 16, the WAC per PASI75 response was $17,009 for UST-treated patients and $19,140 for ETN-treated patients. **CONCLUSIONS:** WAC per PASI75 response was lower for UST relative to ETN through 16 weeks in PsO patients.

**PSS11**

### COST-UTILITY ANALYSIS OF MAINTENANCE TREATMENT WITH TACROLIMUS OINTMENT IN ADULTS AND CHILDREN WITH MODERATE AND SEVERE ATOPIC DERMATITIS

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**OBJECTIVES:** A twice weekly maintenance treatment strategy with tacrolimus ointment for atopic dermatitis significantly delayed and reduced the number of disease flares over a 12-month period compared with the standard reactive tacrolimus treatment strategy. The aim of this post hoc analysis was to evaluate the cost-effectiveness of the maintenance strategy versus the reactive strategy in adults and children with moderate and severe atopic dermatitis (AD). **METHODS:** The evaluation was performed using a decision analytic model based on the results of two pivotal phase III trials that were conducted in adults and children receiving 0.1% and 0.03% tacrolimus ointment, respectively. Clinical data were taken from the clinical trials and utility data were derived from a published source. The time horizon was 12 months; costs and utilities were applied to the treatment period and to any remaining days in the 12-month period post-tacrolimus discontinuation. Sensitivity analyses assessed the degree of uncertainty around the results. The analysis was conducted from the perspective of the UK National Health Service. **RESULTS:** In the base-case analysis for both adults and children with moderate and severe AD, the maintenance treatment strategy with tacrolimus ointment was dominant over the reactive treatment strategy in that it was more effective and less costly. In univariate sensitivity analyses, for all patient groups, few parameters when varied between the value of their upper and lower confidence interval resulted in incremental cost-effectiveness ratios (ICERs) above zero. Probabilistic sensitivity analyses demonstrated that the probability of tacrolimus maintenance treatment being dominant over the reactive treatment strategy was; 76% for adults with moderate AD, 89% for adults with severe AD, 75% for children with moderate AD and 54% for children with severe AD. **CONCLUSIONS:** Maintenance use of tacrolimus ointment is a dominant treatment strategy compared with reactive use, providing incremental health benefits at a lower cost.

**PSS12**

### MODELING THE COST-EFFECTIVENESS OF USTEKINUMAB FOR MODERATE TO SEVERE PLAQUE PSORIASIS IN US

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**OBJECTIVES:** To determine cost-effectiveness of Ustekinumab in patients with moderate-to-severe plaque psoriasis in comparison with Etanercept from third-party payer perspective. **METHODS:** A cost-utility analysis was performed using a Markov model which compared cost per QALY of Ustekinumab (45 mg at week 0 and 4, then every 12 weeks thereafter) and Etanercept (50 mg twice weekly for the first 12 weeks and then once a week). The probabilities of treatment response were taken from the ACCEPT trial (which compared both the drugs); while utility values for different stages were obtained from published studies. A 12 week paradigm for the base case of each agent was developed on the basis of dosage administration, laboratory monitoring utilized in the Randomized Clinical Trials and manufacturer's published guidelines. The cost of therapies included 2009 AWP (average wholesale price) of both the drugs, and cost of physician visits and lab were inflated to 2009 from 2006 Medicare clinical laboratory fee schedule and physician reimbursement schedule (which used mean US reimbursement). Since the time frame of the analysis was only 12 weeks, the costs of long-term side effects and adverse events were not included. Extrapolations were made to evaluate the cost-effectiveness of two drugs over a period of five years, with costs and benefits discounted at 3.5% per annum. Various sensitivity analysis were carried out to test the robustness of the model. **RESULTS:** The QALYs gained by Ustekinumab in comparison to Etanercept over a period of 5 years were 0.23, at an incremental cost-effectiveness ratio (ICER) of $65,693.59 per QALY gained. Further sensitivity analysis confirmed the robustness of results. **CONCLUSIONS:** Although as per the present analysis, Ustekinumab might not appear to be more cost effective than Etanercept, but it may be recommended due to modest increase in QALYs and convenient dosage pattern of once in 12 weeks.

## SENSORY SYSTEMS DISORDERS – Patient-Reported Outcomes Studies

**PSS13**

### VALIDITY AND RELIABILITY OF THE VISUAL FUNCTION QUESTIONNAIRE UTILITY INDEX IN INDIVIDUALS WITH AGE-RELATED MACULAR DEGENERATION

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**OBJECTIVES:** The Visual Function Questionnaire Utility Index (VFQ-UI) is a vision-specific preference measure developed from the National Eye Institute Visual Function Questionnaire 25 (NEI VFQ-25). The objective of this analysis was to assess the validity and reliability of the VFQ-UI in individuals with age-related macular degeneration (AMD). **METHODS:** Post-hoc analysis using data collected from a multicenter, randomized controlled trial of 138 individuals with AMD. The NEI VFQ-25, HUI, and EQ-5D were administered at baseline and day 1 visits. The NEI VFQ-25 dataset was used to calculate utility values using the VFQ-UI algorithm. Validity was assessed using convergent validity with HUI2, HUI3 and visual acuity and discriminant validity with the EQ-5D and known groups of visual acuity. Reliability was